



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/989,373	12/12/1997	ARTURO J. GARCIA	TRD-009-PA	8757
29673	7590	10/09/2003		
STEVENS & SHOWALTER LLP 7019 CORPORATE WAY DAYTON, OH 45459-4238			EXAMINER LEE, PING	
			ART UNIT 2644	PAPER NUMBER 30
DATE MAILED: 10/09/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/989,373

Applicant(s)

GARCIA ET AL.

Examiner

Ping Lee

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8,9,12-16,18-27,29,31 and 33-43 is/are rejected.
- 7) ☒ Claim(s) 7,10,11,17,28,30,32 and 44-47 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,24,25.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. In view of the preliminary amendment filed on 6/20/00, the previous final rejection, Paper #20, has been vacated.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 4, 8, 9, 12-16, 18-27, 29, 31 and 33-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Garcia (US 5,361,306).

Regarding claims 1, 4, 8, 9, 12-16, 18-27, 31 and 33-43, Garcia shows an apparatus for enhancing the quality of an input audio signal comprising an audio source (col. 3, lines 38-39), a passive circuit (54, 109) which distorts the input signal, when transmitted therethrough, into an enhanced audio signal by distorting audible frequency components of the input audio signal such that the audible frequency component increase in amplitude as they increase in frequency from a first intermediate frequency up to a high frequency (col. 4, lines 17-25).

Regarding claim 29, the claimed audio source reads on the signal at the input of the passive circuit 54.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 2, 3, 5 and 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia.

Regarding claims 2 and 5, Garcia fails to explicitly show the high frequency is in the range of from about 6 kHz to about 30kHz. It was well known in the art that an audio system generally reproduced sound signal from 20 Hz to 20 kHz. Garcia also shows a typical audio system (col. 5, lines 5-6). Thus, it would have been obvious to one of ordinary skill in the art to modify Garcia's system by utilizing the harmonic enhancement method as taught in Garcia for a general audio system with reproduction range from 20 Hz to 20 kHz in order to improve the listening experience.

Regarding claims 3 and 6, Garcia fails to explicitly show the amplitude of the high frequency or the low frequency with respect to the intermediate frequency. It was well known in the art that the winding of the transformer, the gap between the windings and/or material of the core would affect the amplification of the passive circuit. Thus, depending on the criteria determined by the engineer, it would have been obvious to one of ordinary skill in the art to modify Garcia depending on the selected winding, the gap and/or the material of the core of the passive circuit.

Response to Arguments

6. Applicant's arguments filed 8/12/00 have been fully considered but they are not persuasive.

Applicant argued that Garcia shows other active elements; therefore, Garcia fails to show the passive circuit.

The claimed passive circuit reads on elements 54 and 109 of Garcia. This passive circuit comprises only passive elements (see Fig. 3) and it will provide enhanced audio signal. Therefore, Garcia shows the claimed limitation.

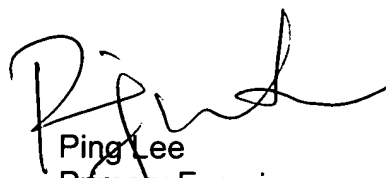
Allowable Subject Matter

7. Claims 7, 10, 11, 17, 28, 30, 32 and 45-47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 703-305-4865. The examiner can normally be reached on Monday and Tuesday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.


Ping Lee
Primary Examiner
Art Unit 2644